This report is required by law (7 USC 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

See reverse side for additional information.

Interagency Report Control No. 0180-DOA-AN

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

# ANNUAL REPORT OF RESEARCH FACILITY
*(TYPE OR PRINT)*

1. REGISTRATION NO.
22-R-0030

FORM APPROVED
OMB NO. 0579-0036

2. HEADQUARTERS RESEARCH FACILITY *(Name and Address, as registered with USDA, include Zip Code)*

Merck & Co.Inc.
126 E. Lincoln Avenue
PO Box 2000, RY33-508
Rahway, NJ 07065

(b)(2)High, (b)(7)(f)

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets if necessary.)

FACILITY LOCATIONS *(Sites)*

See attached listing.

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY *(Attach additional sheets if necessary or use APHIS FORM 7023A.)*

| A. Animals Covered By The Animal Welfare Regulations | B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes. | C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs. | D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used. | E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. *(An explanation of the procedures producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report).* | F. TOTAL NO. OF ANIMALS (Cols. C + D + E) |
|---|---|---|---|---|---|
| 4. Dogs | 53 | 882 | 1252 | 23 | 2157 |
| 5. Cats | 0 | 34 | 0 | 0 | 34 |
| 6. Guinea Pigs | 204 | 1420 | 840 | 18 | 2278 |
| 7. Hamsters | 39 | 210 | 0 | 0 | 210 |
| 8. Rabbits | 127 | 1345 | 1135 | 238 | 2718 |
| 9. Non-human Primates | 4542 | 353 | 1109 | 5 | 1467 |
| 10. Sheep | 0 | 0 | 0 | 0 | 0 |
| 11. Pigs | 0 | 10 | 6 | 0 | 16 |
| 12. Other Farm Animals | | | | | |
| Horses | 4 | 1 | 3 | 0 | 4 |
| 13. Other Animals | | | | | |
| Ferrets | 0 | 25 | 55 | 19 | 99 |
| | | | | | |
| | | | | | |

ASSURANCE STATEMENTS

1). Professionally acceptable standards governing the care, treatment, and use of animals, including approriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.

2). Each principal investigator has considered alternatives to painful procedures.

3). This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). **A summary of all such exceptions is attached to this annual report.** In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.

4). The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

**CERTIFICATION BY HEADQUARTES RESEARCH FACILITY OFFICIAL**
**(Chief Executive Officer or Legally Responsible Institutional Official)**
I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

| SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL | NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL *(Type or Print)* | DATE SIGNED |
|---|---|---|
| (b)(6), (b)(7)(c) | (b)(6), (b)(7)(c) | 1/30/05 |

APHIS FORM 7023 (AUG 91) (Replaces VS FORM 18-23 (OCT 88), which is obsolete.)

PART 1 - HEADQUARTERS

# USDA Annual Report: October 1, 2004 – September 30, 2005

## Registration Number 22-R-0030; Merck & Co., Inc.

**Site Listing:**

126 E. Lincoln Avenue
Rahway, NJ 07065-4607
COUNTY: UNION

Telephone:
(b)(2)High, (b)(7)(f)

203 River Road
Somerville, NJ 08876
COUNTY: SOMERSET

Telephone:
(b)(2)High, (b)(7)(f)

WP44-201
West Point, PA 19486-0004
COUNTY: MONTGOMERY

Telephone:
(b)(2)High, (b)(7)(f)

WP74-1
West Point, PA 19486-0004
COUNTY: MONTGOMERY

Telephone:
(b)(2)High, (b)(7)(f)

33 Avenue Louis Pasteur
Boston, MA 02115
COUNTY : Boston

Telephone:
(b)(2)High, (b)(7)(f)

Telephone:
(b)(2)High, (b)(7)(f)

Telephone:
(b)(2)High, (b)(7)(f)

Telephone:
(b)(2)High, (b)(7)(f)

(b)(2)High, (b)(7)(f)

Telephone:
(b)(2)High, (b)(7)(f)

Telephone:
(b)(2)High, (b)(7)(f)

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**Registration Number 22-R-0030; Merck & Co., Inc.**

## EXPLANATION OF ITEMS IN COLUMN E:

1. Two hundred and thirty three rabbits were on an IACUC approved protocol to evaluate the efficacy of new (b)(4) compounds. The animals were (b)(4) (b)(4) and then treated with novel (b)(4) compounds. Established (b)(4) compounds could not be used to treat the animals' (b)(4) because they would interfere with the interpretation of the test result and defeat the purpose of the research. In addition, the interaction of pain-relieving agents with the novel compounds is unknown at this time. The total number of rabbits was kept to the minimum required to produce meaningful and reliable test results. Additionally, the length of the study was limited to the time necessary to establish the model and conduct the studies.

2. Nineteen ferrets were studied according to an IACUC approved protocol for assessing (b)(4) compounds. Intermittent (b)(4) were induced by the administration of an (b)(4) Commercially available analgesics could not be administered because they would have confounded interpretation of data and defeated the purpose of the research. The minimum number of animals were used to provide reliable data and the length of the study was limited to eight hours or less no more than once per week. The animals were observed continuously during the 8 hour period.

3. Fourteen guinea pigs were used on an IACUC approved protocol to determine relative (b)(4) of new (b)(4) were used to (b)(4) and these 14 animals did not respond to the new (b)(4) being evaluated. It was unknown which compounds might show efficacy and the interaction of pain relieving agents with the novel compounds evaluated were not known. Therefore, pain relieving agents could not be utilized in these studies. The animals experienced normal levels of distress associated with (b)(4) including (b)(4) and (b)(4) Animals were observed at least twice a day. The number of animals used in these studies was kept to the minimum required to produce reliable data and study length was kept to the minimum necessary for compound evaluation.

4. Twenty two dogs were used in a (b)(4) . The model was minimally invasive, required a short evaluation time, was localized to one (b)(4) and caused clinical discomfort that began to dissipate after 4 hours. Animals received an ultra-short acting anesthetic (propofol) prior to the (b)(4) b4 Dogs began to bear less weight on the affected limb by 1 hour after injection, and discomfort is maximal by about 4 hours. Weight bearing is

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**EXPLANATION OF ITEMS IN COLUMN E (continued):**

improved by 10 hours after injection, and animals are normal by 24 hours after injection. Analgesics could not be used since they would interfere with the evaluation of the novel compounds being assessed. The minimum number of animals were used on this model to still allow for the generation of useful data.

Eleven of the twenty two dogs above were then used in an IACUC approved study to evaluated (b)(4) compounds in a (b)(4) model. This model is minimally invasive and discomfort dissipates soon after the (b)(4) (b)(4) . The use of pain-relieveing agents would negate the objective of the experiment by interfering with the study of the effects of the novel compounds. The minimum number of animals necessary were used on this study to assure reliable data.

5. Four guinea pigs experienced unanticipated distress for less than 24 hours after IP administration of a compound for an IAUC approved procedure (General Safety Test, as described in 21 CFR 610.11). This is a Compendial test required for release of a biologic product and administration of analgesic agents would compromise evaluation of the test results. The guinea pigs were monitored closely to see if the clinical signs would resolve. After the monitoring period, all four or the animals were terminated early at 24 hours (test runs for 21 days). For this particular test, the procedure was subsequently modified so that clinical signs of distress were more tightly defined and animals exhibiting such signs are terminated at the time the signs are observed.

6. Five rabbits on IACUC approved studies developed acute terminal complications. The studies were conducted in accordance to FDA regulations as published in the Federal Register Vol. 59 N0.183 22 Sept 1994 pages 48746 to 48752.

7. Five nonhuman primates on IACUC approved studies developed acute terminal complications. The studies were conducted in accordance to FDA regulations as published in the Federal Register Vol. 59 N0.183 22 Sept 1994 pages 48746 to 48752.

8. One dog on an IACUC approved study developed acute terminal complications. The studies were conducted in accordance to FDA regulations as published in the Federal Register Vol. 59 N0.183 22 Sept 1994 pages 48746 to 48752.

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**IACUC Approved Exceptions to the Regulations:**

Exemption from the dog exercise program for 9 dogs was required for up to 2 weeks due to radio telemetry procedures.

Exemption from the approved dog exercise plan was required on ten occasions for a five-day urine/feces collection period after radioactive isotopes were administered. This affected 3 dogs.

Exemption from the approved dog exercise plan was required on five occasions for a ten-day urine/feces collection period after radioactive isotopes were administered. This affected 4 dogs.

Exemption from the approved dog exercise plan was required on one occasion for a twenty-three-day urine/feces collection period after radioactive isotopes were administered. This affected 1 dog.

Exemption from the approved dog exercise plan was required on one occasion for a ninety-three-day urine/feces collection period after radioactive isotopes were administered. This affected 3 dogs.

Exemption from the approved dog exercise plan was required on one occasion for a one hundred-five-day urine/feces collection period after radioactive isotopes were administered. This affected 1 dog.